

Moving California's Schools from Worst to First: What Will it Really Take to Leave No Child Behind?

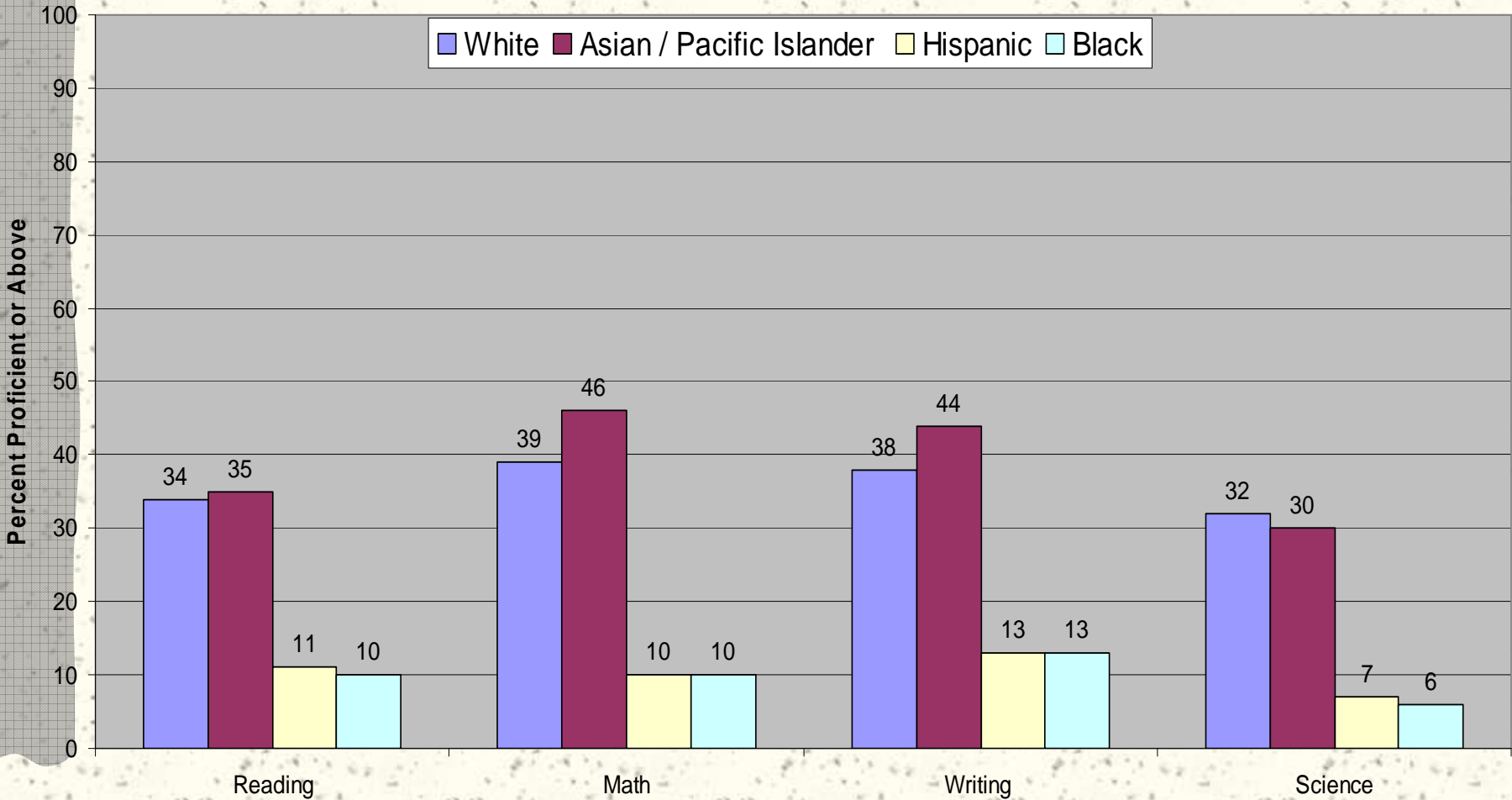


The Triple Threat

- # The Achievement Gap among Students in California
- # The Achievement Gap between California and the rest of the Country
- # The Achievement Gap between the US and High-Achievers in the World

CA Student Achievement, by Race

Percent Proficient or Above on NAEP



The Achievement Gap Between CA and the rest of the US

National Assessment of Educational Progress Rankings, 2007

CA Reading Rank

4th Grade - 48th

8th Grade - 49th

CA Mathematics Rank

4th Grade - 47th

8th Grade - 45th

CA Science Rank

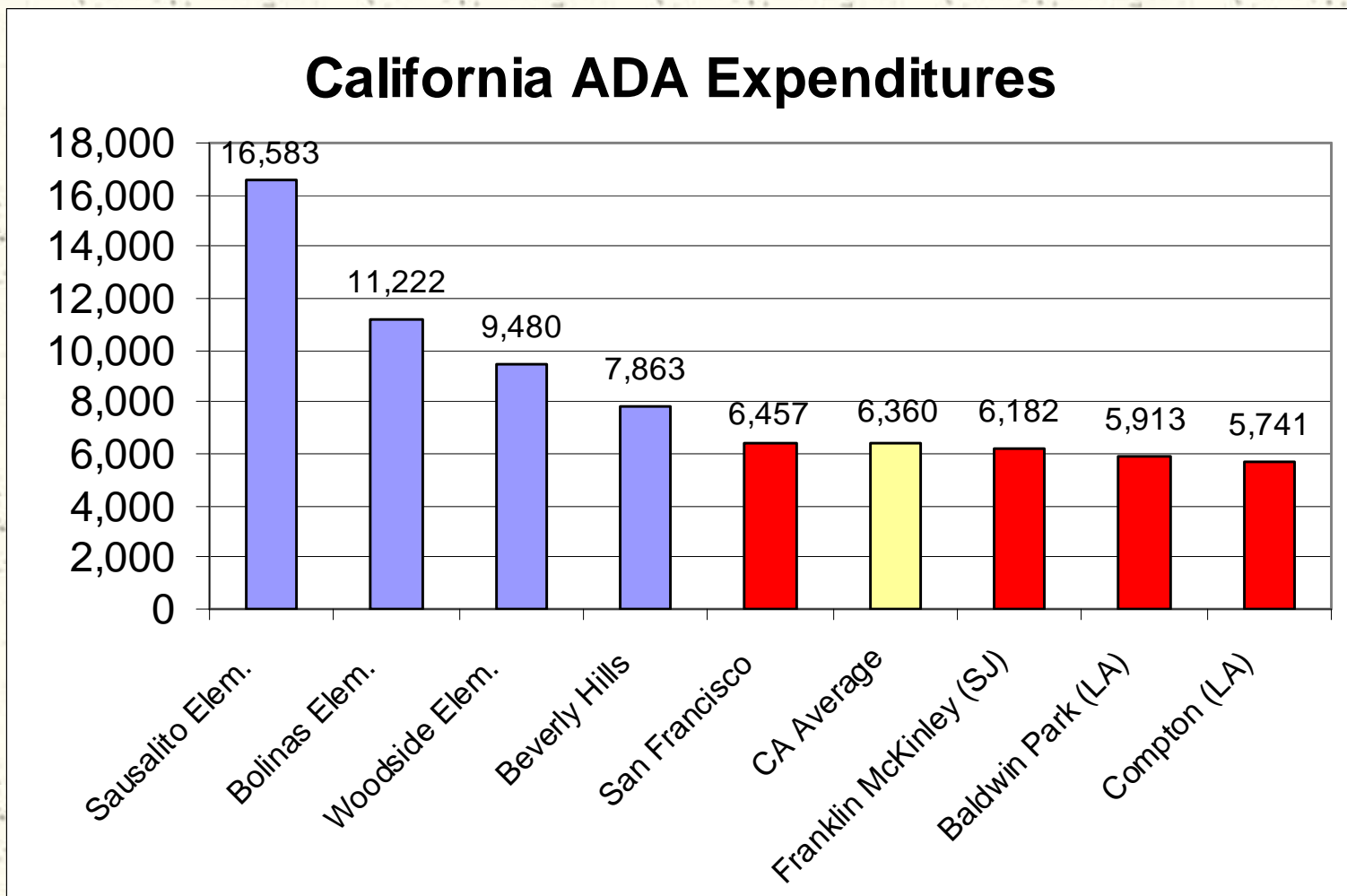
4th Grade - 49th

8th Grade - 49th

Status of Education in California

- By 2009, 30 years after Proposition 13, California ranks 1st in the nation in the number of students; 48th in expenditures as a share of personal income; and 50th in teacher / student ratio.
- Spending differentials have grown, and are greater than 3 to 1, ranging from \$6000 per pupil in some districts to over \$20,000 per pupil in others.
- Schools serving more than 2 million students lack textbooks, libraries, safe facilities, college prep courses, counselors, and qualified teachers.

Education Spending is Unequal and Inadequate



The Achievement Gap Between the US and other Nations

(8th Grade PISA Results, 2006)

Science

Finland
Canada
Japan
New Zealand
Australia
Netherlands
Korea
Germany
United Kingdom

Math

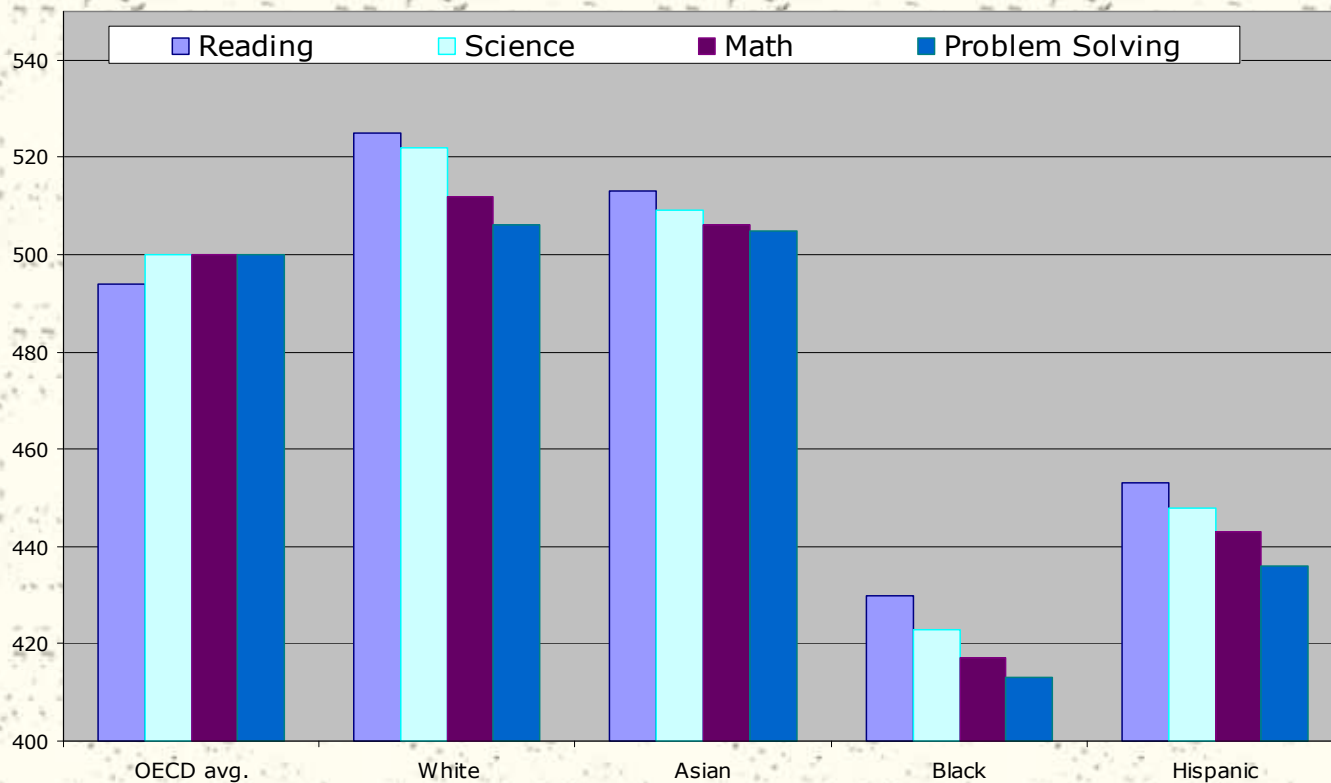
Finland
Korea
Netherlands
Switzerland
Canada
Japan
New Zealand
Belgium
Australia

U.S. is # 21 / 30 OECD nations

U.S. is #25 / 30

Inequality Drives Low US Rankings

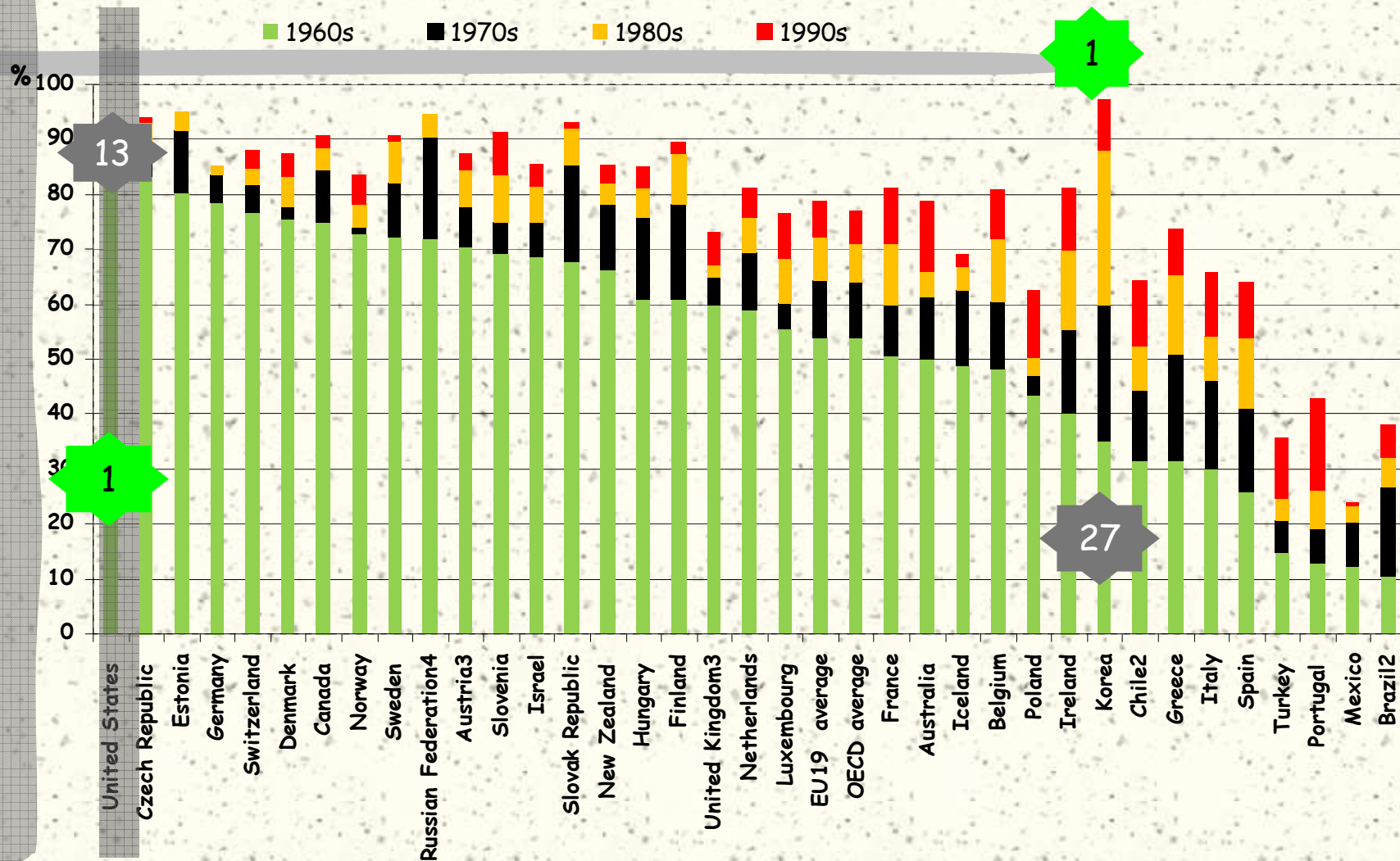
Figure 1
U.S. PISA Results, by Subgroup, Compared to OECD Average



Growth in high school completion

A world of change

Approximated by percentage of persons with ISCED3 qualifications in age groups 55-64, 45-55, 45-44 und 25-34 years



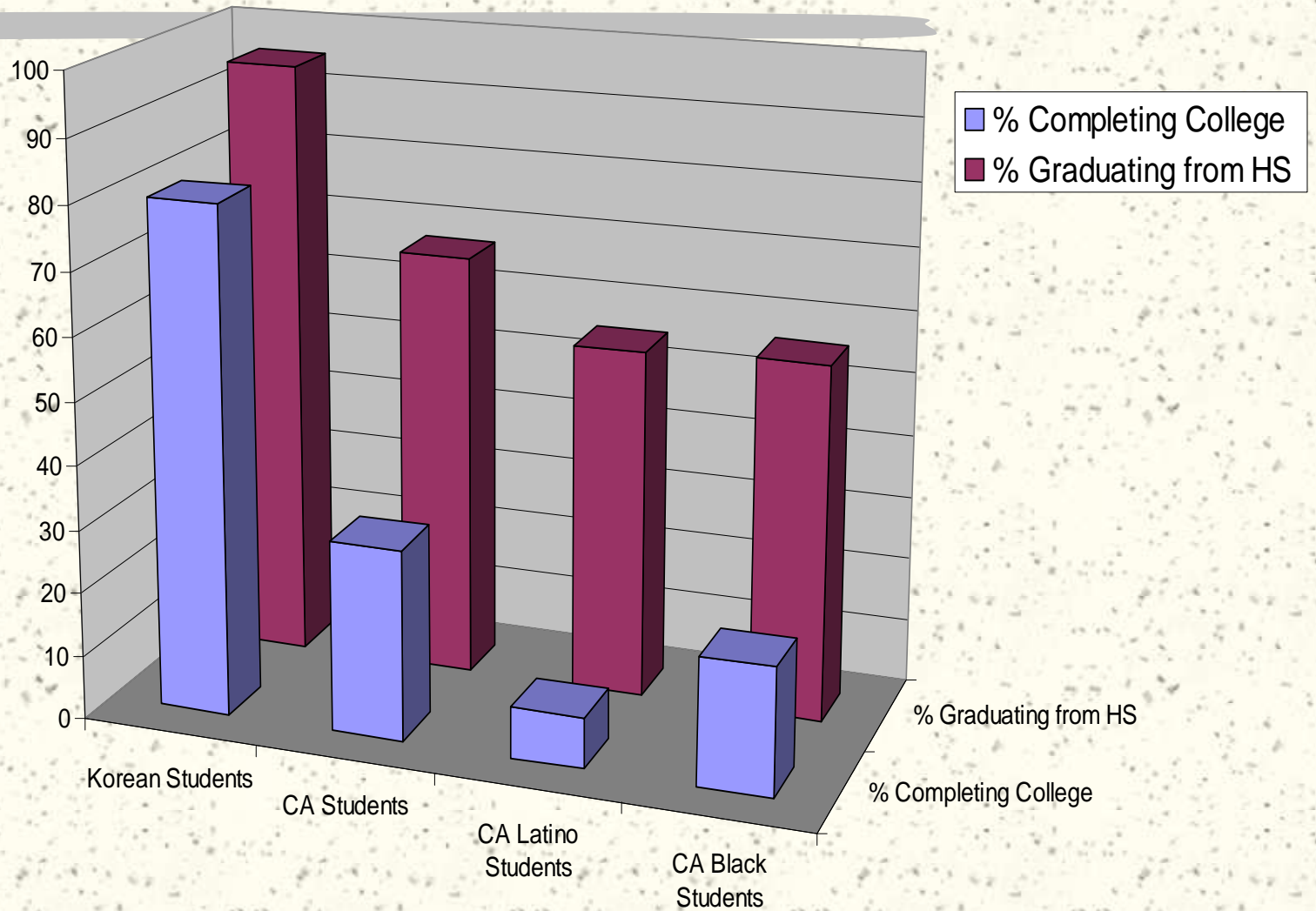
1. Excluding ISCED 3C short programmes
 3. Including some ISCED 3C short programmes

2. Year of reference 2004
 3. Year of reference 2003.

CA Graduation & College-Going Rates are Going Down

- # In 2006, only 67% of students who were 9th graders 4 years earlier graduated (a decline from 71% the year before):
 - 56% of African American students
 - 55% of Latino students
- # 12th grade dropouts increased from 14,000 in 2002 to 24,000 in 2006
- # College freshmen decreased by 25,000 from 2005 to 2006 and decreased by another 5,000 last year

California Outcomes in International Perspective



What are the Highest Achieving Nations Doing?

- # Universal preschool and health care
- # Massive investments in initial teacher education and ongoing teacher learning
- # Equitable funding and equitable salaries with additional investments in high-need schools
- # A lean curriculum with assessments focused on higher order performance skills, including school-based performance assessments
- # Investments in higher education

The Achievement Gap Will Drive a Growing State Budget Gap

- ✦ By 2025, Californians will be less well-educated, on average, than they are today, and risk higher rates of unemployment (1 of 2 dropouts is unemployed).
- ✦ A large share of the state's human resources are on a school-to-prison pipeline, which has quadrupled in the last two decades.
- ✦ These inmates, most of them high school dropouts, cost over \$46,000 apiece to incarcerate.
- ✦ By 2008 the state was spending as much on corrections as on public higher education, and reducing college seats while expanding prison beds.

Sources of Inequality

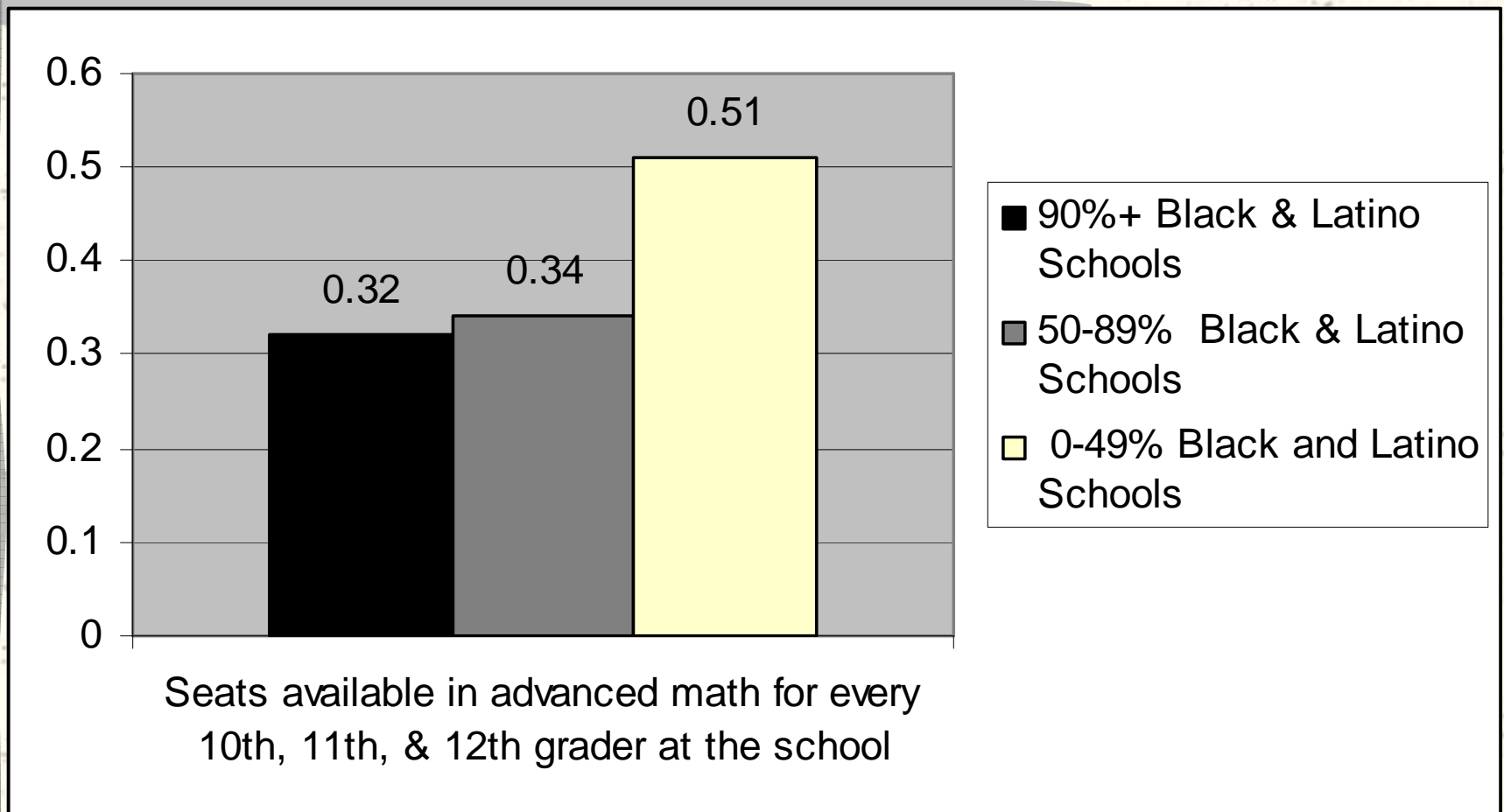
Nationwide and in CA, schools serving minority and low-income students have

- Lower funding levels
- Larger class sizes
- Less qualified teachers
- Fewer college preparatory or AP courses
- Larger school sizes
- Fewer computers, books, supplies

Segregation Supports Inequality

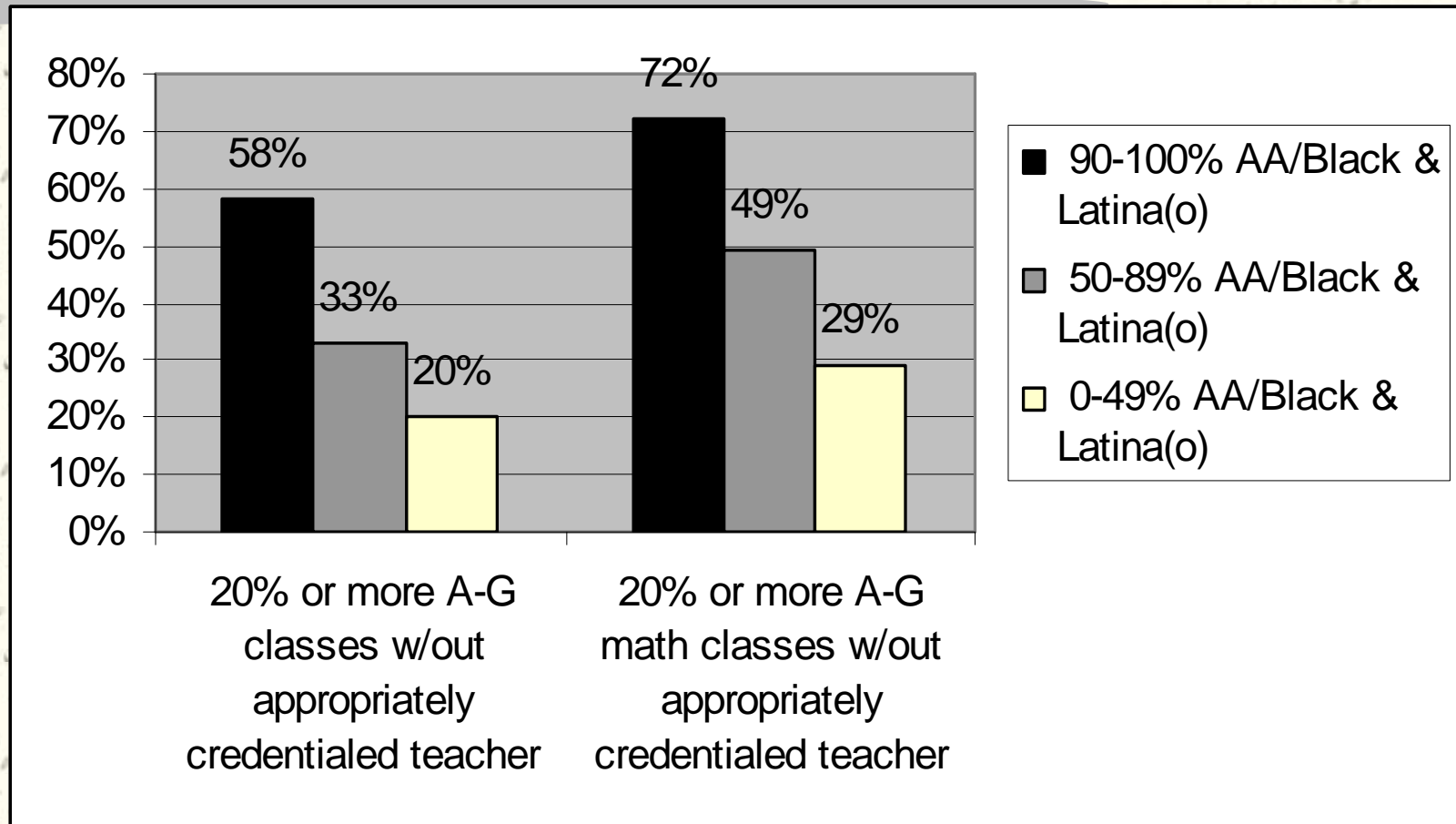
- # 90% of Black and Latino students in CA attend predominantly minority schools; 40% attend apartheid schools, with lower levels of instructional resources
- # Within "integrated" schools, most minority students are concentrated in low-track classes which receive less well-qualified teachers, less engaging curriculum, and lower-quality materials

Disparities in Access to Higher Level A-G Math Classes 2004-2005



Source: California Basic Education System

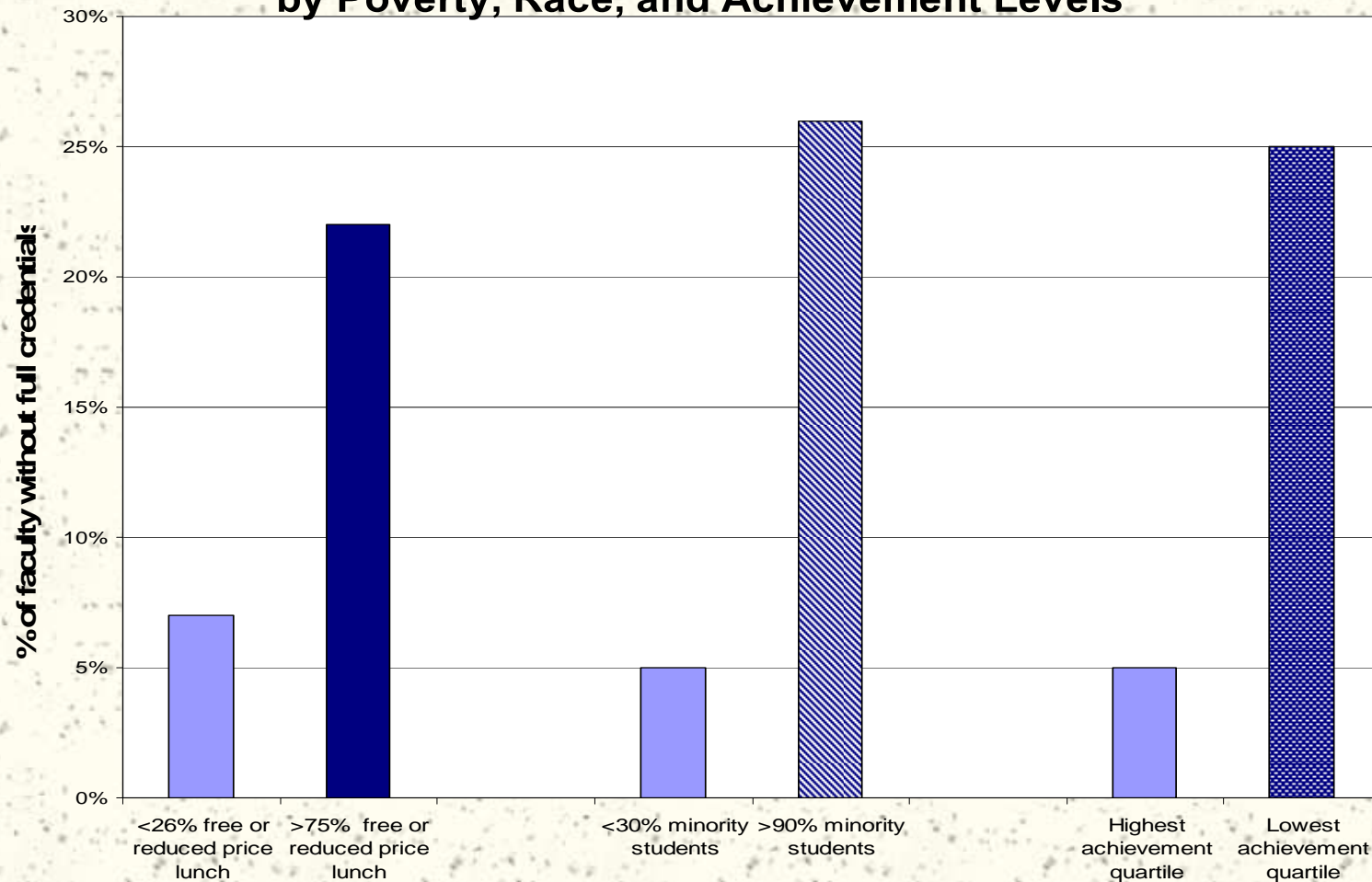
Disparities in Access to A-G Classes Taught by Subject Matter Certified Teachers 2004-2005



Source: California Basic Education System

Unequal Access to Qualified Teachers in California

Distribution of Uncertified Teachers by Poverty, Race, and Achievement Levels



Source: Shields et al., 2001

How Teacher Quality Matters

In a study of 7000 CA schools, researchers found:

"Among school resource measures, the level of teacher experience and a related measure - the percentage of teachers with a full credential - are the variables most strongly related to student achievement....

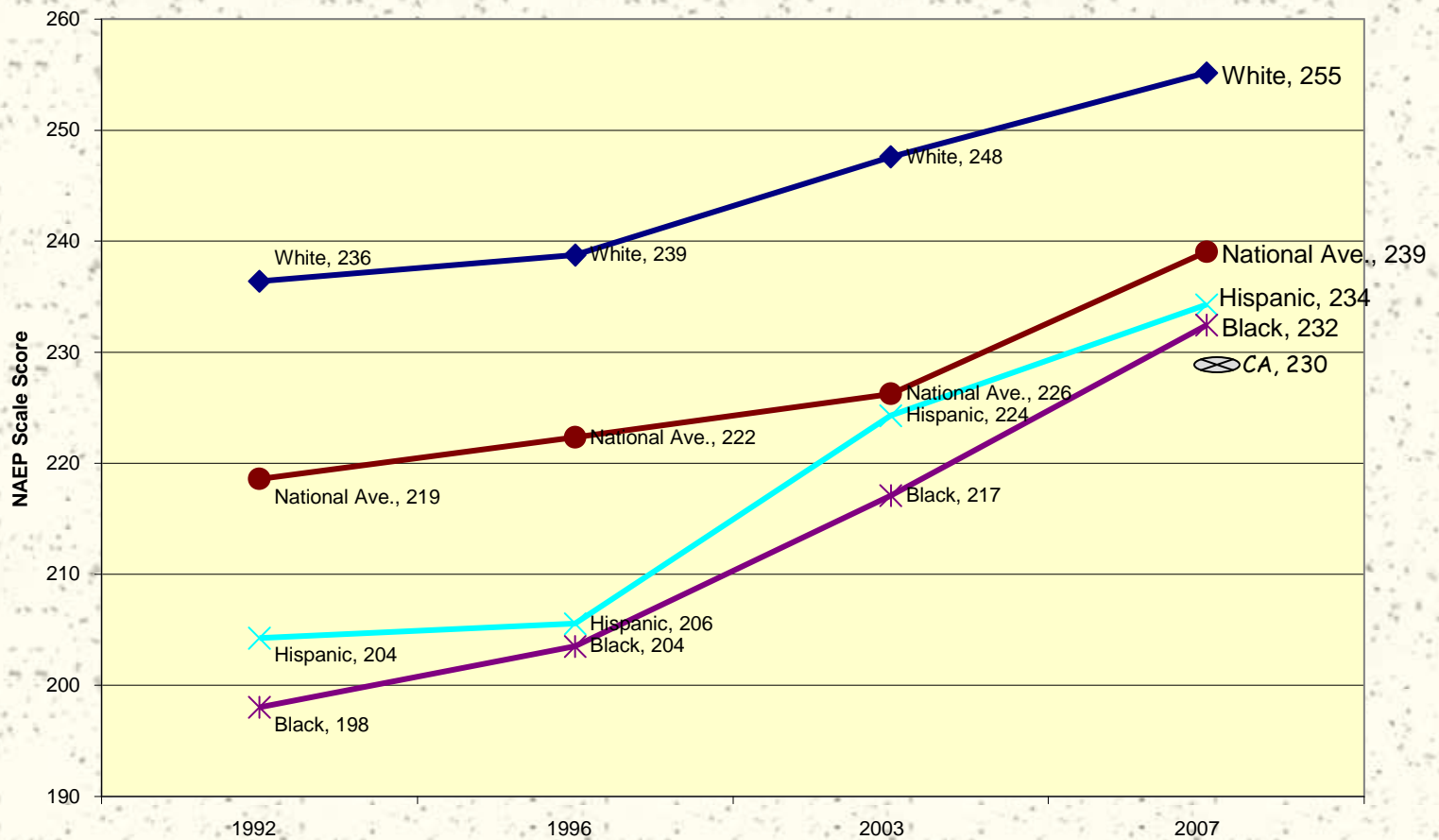
-- Betts, Rueben, & Dannenberg, The Distribution of School Resources in California, Public Policy Institute of California

What CA Can Do to Close the Achievement Gap (with Federal Help)

- # Expand Preschool Access
- # Invest in Better Prepared, more Equitably Distributed Teachers and Leaders
- # Focus Curriculum & Assessment more Clearly on College & Career Ready Skills
- # Support Effective School Turnaround through Stronger Professional Development and School Redesign
- # Significantly Strengthen Training for Special Educators and Teachers of ELL Students

Outcomes of a Focused Approach

New Jersey Math Achievement Trends 4th Grade NAEP



Source: National Assessment of Educational Progress, NAEP Data Trends

Rebuild CA's Infrastructure for Teaching and School Leadership

- # Reinststate subsidies for training tied to retention in high-need communities and fields (Draw on federal TEACH grants and Teacher Quality Partnerships)
- # Support the CA Teacher Performance Assessment to improve training
- # Use new Title I professional development funds to support stronger training for teachers and school leaders
- # Equalize and "de-categoricalize" funding

Use new standards to refocus curriculum & assessment

- # In addition to Race to the Top funding, consider adopting new "common standards"
- # Work with other states on 21st century assessments that include state and local performance components

NAEP, 8th and 12th Grade Science

1. What two gases make up most of the Earth's atmosphere?

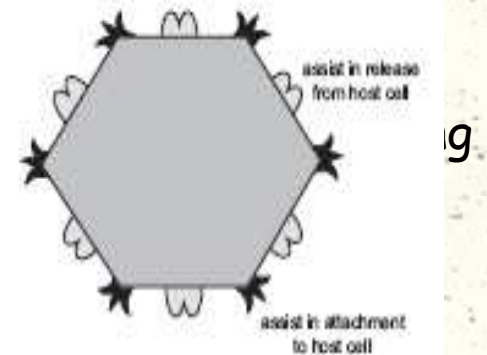
- # A) Hydrogen and oxygen
- # B) Hydrogen and nitrogen
- # C) Oxygen and carbon dioxide
- # D) Oxygen and nitrogen

2. Is a hamburger an example of stored energy? Explain why or why not.

High School Biology Exam, Victoria, Australia

3. When scientists design drugs against infectious agents, the term "designed drug" is often used.
- A. Explain what is meant by this term.
-
-

Scientists aim to develop a drug against a particular virus that infects humans. The virus has a protein coat and different parts of the coat play different roles in the infective cycle. Some assist in attachment of the virus to a host cell; others assist in release from a host cell. The structure is represented in the following diagram:



The virus reproduces by attaching itself to the surface of a host cell and injecting its DNA into the cell. The viral DNA then uses the components of host cell to reproduce its parts and hundreds of new viruses bud off from the host cell. Ultimately the host cell dies.

What We Need In Order to Achieve Instructional Quality & Equity

- # Equitable Resources
- # Well-trained teachers in every school
- # Focus on learning how to teach challenging content to diverse learners
- # Coherent curriculum focused on core concepts and inquiry within and across the disciplines
- # Performance assessments that guide learning, teaching, curriculum, and management
- # Schools designed for student and teacher learning